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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------------|---------------------|------------------|
| 09/782,413 | 02/13/2001 | Faruk Mehmet Omer Eryurtlu | 4-15-30 | 1921 |

22046 7590 01/24/2007

DOCKET ADMINISTRATOR
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EXAMINER

RAMAN, USHA

ART UNIT

PAPER NUMBER

2623

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|----------------------------------------|------------|---------------|
| 3 MONTHS | 01/24/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|-----------------|-----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/782,413 | ERYURTLU ET AL. | |
| | Examiner | Art Unit | |
| | Usha Raman | 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4 and 6-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4 and 6-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 3rd, 2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 11 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 11 and 15 depend on claims 1 and 8 respectively. Claims 1 and 8 each recite the step of, "not interleaving the video payload" when a channel coding rate is 1/1. Claim 11 and 15 further recite the step of de-interleaving the payload prior to applying it to an interleaving for interleaving

the video payload. The step of interleaving the payload claim 11 and 15 therefore contradict the step of not interleaving the payload in claims 1 and 8 respectively.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4, 6-10, 12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balachandran (US Pat. 6,608,828) in view of Balachandran et al., "A Proposal for EGPRS Radio Link Control Using Link Adaptation and Incremental Redundancy".

With regards to claims 1 and 8, Balachandran discloses a method of supplying real time video data service (see column 2, lines 42-45, lines 55-56) characterized by steps of defining a plurality of channel coding rates applicable to video data (column 7, lines 39-41), selecting one of the said rates and applying it to the data, and transmitting the coded data over a link to a video receiver (receiver of the video telephony service) in which the telecommunications system is a mobile radio telecommunications system (GSM, see abstract). The method further comprises transmitting the channel coding rate as the coding scheme field (CPS field) in the RLC/MAC header

with each transmitted radio burst, the header comprising the coding scheme field (CPS) and a temporary flow indicator field (TFI, see figure 6A).

Balachandran is silent on including a 1/1 channel-coding rate, wherein the video payload is not interleaved upon selection of the 1/1 coding rate and is interleaved for other coding rates.

Balachandran et al. disclose a method of data transmission over the GPS network, comprising a plurality of channel coding rate, including a 1/1 coding rate (the uncoded data), wherein during the transmission of the 1/1 coding data, the data is not interleaved and the data is interleaved for other coding rates. See Balachandran et al: page 24, column 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system by including a 1/1 uncoded transmission rate, and not interleaving payload for the uncoded transmission rate, thereby allowing a higher data transmission rate at the expense of a higher error rate.

With regards to claim 4, Balachandran et al. show a plurality of coding rates including 1/1, 2/3, 1/2, 1/3. See Balachandran et al. : page 28, table III.

With regards to claim 6, the modified system comprises the steps of interleaving by dividing each block of the video payload into a plurality of divisions, and supplying each division in turn to consecutive bursts for radio transmission and also supplying each burst with the header fields for that payload (Balachandran et al.: see figure 2).

With regards to claim 7, the modified system comprises the steps of utilizing stealing bits to determine the composition of headers and data. See Balachandran et al. page 24.

With regards to claim 9, the modified system discloses applying the channel coding in the application layer (i.e. video data) of the conventional 7-layer telecommunications protocol. See Balachandran: fig. 2.

With regards to claims 10, and 14, the modified system is silent on the step of disabling an interleaver for interleaving the video payload. Examiner takes official notice that it was well known in the art to disable an interleaver when it is not necessary to use. It would have been obvious to one of ordinary skill in the art at the time of the invention to disable an interleaver so that uncoded data is not interleaved.

With regards to claims 12, and 16, the modified system is silent on the step of applying time diversity to the header but not to video payload, so as to transmit the header, the video payload and a repetition of the header.

Examiner takes official notice that the use of time diversity was well known in the art at the time of invention, wherein some signals are transmitted repeatedly in order to minimize burst errors. Furthermore, Lee discloses that the header must be communicated as reliable as possible since the errors in header can result in a loss of the entire information burst. See Lee column 1, line 67 and column 2, lines 1-4. Chen further discloses the step of repeating only the header information in order to reduce errors. See Chen: column 4, lines 42-44 and lines 57-61.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use time diversity applied with teachings of Lee and Chen in order to reliably communicate the header thereby repeating only the header information of a RLC/MAC block, in order to prevent burst errors.

7. Claims 13, and 17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Balachandran (US Pat. 6,608,828) in view of Balachandran et al., "A Proposal for EGPRS Radio Link Control Using Link Adaptation and Incremental Redundancy" as applied to claims 1 and 8 above, and further in view of Parantainen et al. (US Pat. 7,054,268).

With regards to claims 13 and 17, the modified system lacks the step of including an end of sequence code in the video bit stream and the header not including a final block indication. Parantainen discloses the step of transmitting an end of sequence code in the data field rather than transmitting in the MAC header. See column 8, lines 45-47.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system in view of Parantainen by transmitting a end of sequence in the data field thereby transmitting a TBF release at the end of an application execution and not inactive periods of the service.

Conclusion

8. ~~The prior art made of record and not relied upon is considered pertinent to~~ applicant's disclosure. Voith et al. (US Pat. 5,737,337) shows disabling an interleaver for faster data throughput at the expense of higher error rates. See Abstract. Hinedi et al. (US Pat. 6,263,466) discloses that interleaving

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payloads reduce burst errors inherent in convolution coding and decoding.

See column 10, lines 10-17. Therefore interleaving step maybe eliminated for uncoded data.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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